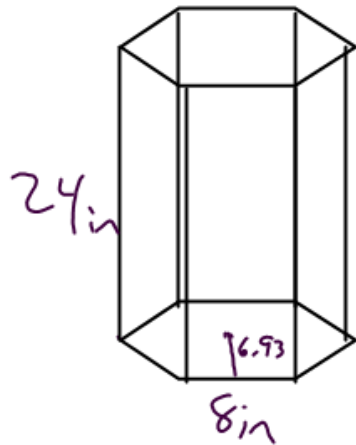


#11 10.5

8!!



$$\begin{aligned} 4^2 + a^2 &= 8^2 \\ 16 + a^2 &= 64 \\ a^2 &= 48 \\ \underline{\underline{a &\approx 6.93}} \end{aligned}$$

$$\begin{aligned} A_{\text{base}} &= \frac{8 \cdot 6.93}{2} \cdot 6 \\ &\approx 166.3 \end{aligned}$$

$$\begin{aligned} V &= 166.3 \cdot 24 \\ &\approx 3991.2 \text{ in}^3 \end{aligned} \rightarrow \text{ft}^3 \div 12^3 = 1728$$

$\div 18 \approx 22 \text{ fish}$

$$\begin{aligned} &= \boxed{2.31 \text{ ft}^3} \times 63 \text{ lbs} = 145.5 \text{ lbs} \\ &+ 48 \text{ lbs} \\ &\boxed{193.5 \text{ lbs}} \end{aligned}$$

#11 in  
10.6

$$V = \frac{4\pi r^3}{3} \div 2$$



$$\frac{4\pi(2)^3}{3} \div 2$$

$$\approx 16.76$$

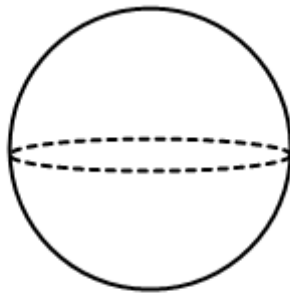
$$V = \frac{\pi r^2}{3} \cdot 2 \times 2$$



$$\frac{\pi(2)^2}{3} \cdot 2 \cdot 2$$

$$\approx 16.76$$

#12 in 10.6



$$V = 972\pi$$

$$V = \frac{4\pi r^3}{3}$$

$$972\cancel{\pi} = \frac{4\cancel{\pi} r^3}{3}$$

$$3 \cdot 972 = \frac{4 r^3}{\cancel{3}}$$

$$\frac{2916}{4} = \frac{4 r^3}{\cancel{4}}$$

$$\Rightarrow \sqrt[3]{729} = \sqrt[3]{r^3}$$

$$\boxed{9 = r}$$

#14 in 10.6



Base Area  $256\pi \text{ cm}^2$

$$A = \pi r^2$$

$$256\pi = \pi r^2$$

$$\sqrt{256} = \sqrt{r^2}$$

$$\underline{\underline{16 = r}}$$

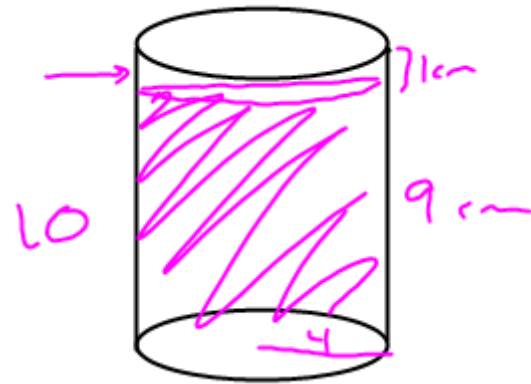
$$V = \frac{4\pi r^3}{3}$$

$$V = \frac{4\pi (16)^3}{3}$$

$$V = 17,157 \text{ cm}^3 \div 2 = 8578.5$$

$$5461\pi \div 2 = 2730.7\pi \text{ cm}^3$$

#16 in 10.6



$$A = \pi r^2$$

$$A = \pi (4)^2$$

$$= 16\pi$$

$$\approx 50.3 \text{ cm}^2 \cdot 1 \text{ cm}$$

height  
↑

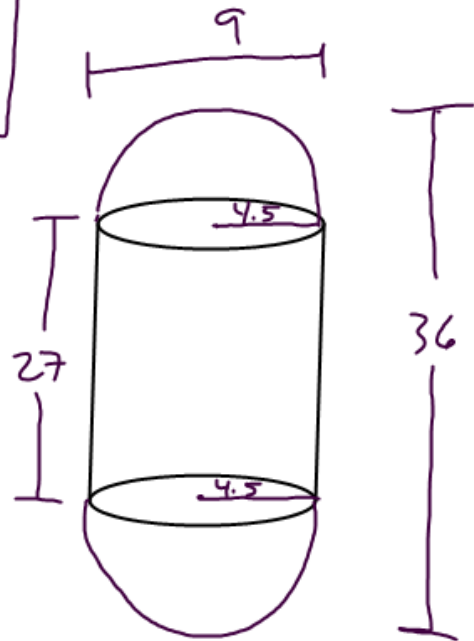
$$V = 50.3 \text{ cm}^3$$

golf ball

$$\frac{4\pi (2)^3}{3} = 33.5 \text{ cm}^3$$

will not  
overflow

#17  
in  
10.6



Cylinder

$$A \cdot H$$

$$\pi r^2 \cdot 27$$

$$\pi (4.5)^2 \cdot 27 = \boxed{V = 1717.67}$$

Sphere

$$V = \frac{4\pi r^3}{3}$$

$$V = \frac{4\pi (4.5)^3}{3} = \boxed{381.70}$$

$$\boxed{\text{total} = 2099.4}$$

$$1 \text{ gal} = 0.13368 \text{ ft}^3$$

$$2099.4 \div 0.13368 = 15,706 \text{ gal}$$

$$20 \cdot 15 = 300 \text{ gal/day}$$

$$15706 \div 300 = 52.4 \text{ days}$$

# Ch. 10 Review

p. 572 #2-12, 17, 20, 22, 24, 25, ~~27~~ <sup>Skip</sup>

## Vocab

pyramid  
prism  
cone  
sphere  
hemisphere  
cylinder

## Area Formulas



$$\Delta \quad A = \frac{b \cdot h}{2}$$

$$A = \frac{(b_1 + b_2)h}{2}$$



$n = \# \text{ sides}$

$$A = \frac{s \cdot a}{2} \cdot n$$



$$A = \pi r^2$$

## Volume Formulas

- prisms + cylinders

$$V = \text{Area of base} \cdot \text{Height}$$

- pyramids + cones

$$V = \frac{\text{Area of base} \cdot \text{Height}}{3}$$

- spheres

$$V = \frac{4\pi r^3}{3}$$

Class Code

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$